Desk

UNIVERSITY OF MICHIGAN

AUG 20 1952

PERIODICAL READING ROOM

THE JOURNAL OF PHILOSOPHY

VOL. XLIX, NO. 17: AUGUST 14, 1952

CONTENTS

545

Flying Saucers: B. A. G. FULLER 455

Book Review

F. A. HAYEK, *The Counter-Revolution of Science; Studies on the Use of Reason:* ERNEST NAGEL 560

New Books and Current Journals 565

Notes and News 572

PUBLISHED FORTNIGHTLY

BY THE

JOURNAL OF PHILOSOPHY, INC.

THE JOURNAL OF PHILOSOPHY

FOUNDED BY FREDERICK J. E. WOODBRIDGE AND WENDELL T. BUSH

EDITORS: Herbert W. Schneider, John H. Randall, Jr., Ernest Nagel.

MANAGING EDITOR: Emerson Buchanan.

Communications to the editors should be addressed to the Managing Editor, 515 West 116th Street, New York 27, N. Y. Subscriptions and advertisements should be sent to THE JOURNAL OF PHILOSOPHY, Prince and Lemon Streets, Lancaster, Pa., or 515 West 116th Street, New York 27, N. Y. The annual subcription price (twenty-six numbers) is $5.25. The price of single numbers is 35 cents, double numbers, 60 cents.

THE JOURNAL OF PHILOSOPHY is owned by the Journal of Philosophy, Inc., and published fortnightly at Prince and Lemon Sts., Lancaster, Pa. Editorial Office: 515 West 116th St., New York 27, N. Y. President, Ernest Nagel; Vice President, Herbert W. Schneider; Treasurer, Frederick A. Dewey; Secretary, Iris Wilder Dean.

Entered as second class matter, March 18, 1921, at the Post Office at Lancaster, Pa., under Act of Congress of March 3, 1879.

Acceptance for mailing at special rate of postage provided for in paragraph (d-2), section 34.40, P. L. & R. of 1948, authorized March 11, 1952.

Publishers: G. E. STECHERT & Co., New York - ATLAS PUBL. & DISTR. Co., Ltd., London - HERMANN & Cie., Paris - NICOLA ZANICHELLI, Bologna - H. BOUVIER & C., BONN a/Rh - EDITORIAL HERDER, Barcelona - F. MACHADO & Cia, Porto - FRIEDRICH KILIAN'S NACHFOLGER, Budapest - F. ROUGE & Cie., Lausanne - THE MARUZEN COMPANY, Tokyo.

1952 46th Year **REVIEW OF SCIENTIFIC SYNTHESIS**

Scientific Committee

G. AMBELLINI – G. CALÒ – F. GIORDANI – G. GOLA – M. GORTANI
A. C. JEMOLO – G. LEVI DELLA VIDA – E. PERSICO
P. RONDONI

"SCIENTIA" Chief - Editor: Paolo Bonetti

IS THE ONLY REVIEW that has a really world-wide circulation.

IS THE ONLY REVIEW of synthesis and unification of science, that deals in its articles with the newest and most fundamental problems of all branches of knowledge: scientific philosophy, history of science, mathematics, astronomy, geology, physics, chemistry, biological sciences, physiology, psychology, history of religions, anthropology, linguistics. "Scientia" thus studies all the main problems interesting the intellectual circles of the whole world.

IS THE ONLY REVIEW that among its contributors can boast of the most illustrious men of science in the whole world. "Scientia" publishes the articles in the language of their authors. Every number has a Supplement containing the complete French translation of the articles, which in the text are published in the Italian, German or Spanish language.

SUBSCRIPTION: $11.00 U.S.A.

For information apply to "SCIENTIA" *Asso* (Como, Italy)

VOLUME XLIX, No. 17 AUGUST 14, 1952

THE JOURNAL OF PHILOSOPHY

FLYING SAUCERS

THE recent sighting of so-called "Flying Saucers," whatever their origin, should remind philosophers that man's belief in his central, privileged, and unique metaphysical status in the universe may be mistaken, and that elsewhere intelligent life may have occurred equal in some respects, and in some or perhaps all, superior to his particular brand. This belief, although its astronomical, astro-physical, biological, and psychological props have been knocked from beneath it, leaving it dangling with only a slippery handhold on metaphysics, still prevails in much western philosophy, theology, and ethics. It has indeed been occasionally challenged, but with no serious disturbance to human smugness.

Science, however, admits the probability of such life. Spencer Jones, the Astronomer Royal, believes it may exist on one in a thousand or even only one in a million of a comparatively limited number of solar systems scattered among the million or more galaxies perceivable by our present telescopes.[1] But the Cambridge astro-physicist Hoyle estimates the number of inhabited planets as at least a hundred thousand in our galaxy alone,[2]—a sizeable population for the observed universe, if our galaxy is typical. The existence of life close at hand on Mars, which is a dying planet, a *memento mori* to the earth, has been much debated. Almost certainly there is still vegetation there, and in the past, at any rate, life existed possibly in higher animal and intelligent forms.[3] Indeed the Mexican astronomer Ancona Albertos thinks it not impossible that, although other animal life is now extinct, a superior species, better adjusted naturally and capable of adapting itself artificially to the slow decline of the planet, may have taken refuge in its interior.[4] Heard, who believes the flying saucers come from Mars, says that this species may have survived on the exterior as an insect of no great size but of great intelligence. As evidence of the development, perhaps still in progress, of mind in terrestrial insects, and of the possibility that on earth they may eventually replace man as its highest example, he refers to von Fritsch's

[1] *Life On Other Worlds*, ch. X.
[2] *The Nature of the Universe*, American ed., pp. 101–102.
[3] Spencer Jones, op. cit., loc. cit.
[4] *El Universo*, Mexico, 1947, p. 274.

experiments with the ability of bees to compute, remember, communicate, and understand by arithmetical and geometrical devices the distance and direction from the hive of a new source of honey and the obstacles to be flown over and around on the way.[5]

Hoyle, to be sure, mentions certain survival values of an anthropoid structure,[6] partially substantiated by the report, if true, of three crashed flying saucers with dead crews of "little men," found somewhere in the southwestern United States.[7] Let us hope, however, that in other anthropoid saucerian species the prehensile tail has been preserved, for the loss of which in his evolution man is less handy. But Spencer Jones points out that on other planets, even minor differences in physical environment may have produced intelligent life in forms at which man cannot even guess. The substitution of silicon for carbon in organic components would enable it to exist at higher temperatures,[8] associated in the mind of God, the idealists might suggest, with the *percipi* constituting the body of a salamander.

Within the range of the human imagination, however, are H. G. Wells' Martians who reproduce a-sexually by budding off their offspring, feed themselves without digestive apparatus by blood transfusion, and communicate by telepathy; and his Selenites, oversized carnivorous insects inhabiting the interior of the moon, socially organized like ants, but with far greater specialization of physical and mental functions initiated at the larva stage.[9] Within that of sober, scientific speculation founded on observation, is Haldane's discussion of the scientific, theological, and philosophical inferences reflective dogs, bees, and molluscs might draw from their experiences, and of the "personality problem" of a severed self-conscious worm whose halves went their separate ways remembering when they were one and the same person, and that person neither one of them.[10] Possibly, too, nature has somewhere outdone the cybernetic researchers by skipping the organic stage and producing self-conscious computing machines. These, though intelligent, would not be *alive*. But neither can disembodied spirits be said to *live*, unless we eviscerate the word of its ordinary meaning and embalm it with that of existence in general. However, to speculate about the state and content of a consciousness devoid of organic support would lead us too far afield or astray.

[5] *Is Another World Watching?*
[6] Hoyle, op. cit., loc. cit.
[7] Scully, *Behind the Flying Saucers.*
[8] Op. cit., loc. cit.
[9] *The War of the Worlds. The First Men in the Moon.*
[10] Essay entitled "Other Possible Worlds" in volume of the same name.

It is an interesting question whether the higher, self-conscious, personal degree of intelligent life on other planets has been gradually evolved, or has suddenly emerged, or is due, as some think it is in man, to the intervention, at a certain stage of mental evolution, of specially created souls or spirits. The last can scarcely be the case with species of the severed worm type, which propagate by physiological and psychological fragmentation, and, instead of dying, divide into segments endowed with a new lease of life and with selves in which the parent self survives. They would seem to offer neither landing nor take-off for a soul from above.

Personally, I hope the saucers are space-ships from other worlds, manned by beings far differently constituted physically, mentally, morally, and spiritually from ourselves. I should enjoy the flutter they would then cause in earthly, theological and philosophical dove-cotes. Moreover, anthropomorphic and anthropocentric concepts of the universe give me claustrophobia. Despite their cosy interiors and creature spiritual comforts, I find them stuffy and too redolent of *homo sapiens*, and I would like to see their closed doors and curtained windows blown open by winds of doctrine from other worlds. But, alas for my wishful thinking, I think that what I saw, not so long ago, at high noon was the planet Venus.

I feel free, however, to compensate in fancy for this disappointment in fact by exercising the will to believe and remaining steadfast in the faith, as well attested as any other in things hoped for but unseen, that intelligent life exists in forms, quite different from ours, dispersed throughout the universe. As to the flying saucers, I shall adopt, pending further investigation, the prudent reserve of the Church towards reported apparitions from on high. In any case it seems to me that human philosophy, unless it is to be parochial and confined to editorial comment on what goes on in the home town, should give some thought to what may be taking place beyond the city limits. Waiving, then, the spatio-temporal difficulties of convoking, convening, and establishing communication between the members of an Interplanetary Philosophical Congress, I propose, just to see at least something of what might happen, to assemble somewhere in Wonderland one composed of the most eminent scientists, theologians, and philosophers selected from a variety of forms of saucerian life by no means exhaustive of its possibilities but sufficient to point a moral and adorn a tale.

We will leave to the imagination their diversity of life-expectancy and of methods of reproduction, nutrition, locomotion, manipulation, communication, sense-perception, and the like. Their sensible worlds will be conditioned by the number, nature, and arrangement of their sense-organs (species with a circle of ten

eyes like a black-widow spider must have a visual field unlike the human), of the stimuli to which they are sensitive, and of the spatio-temporal dimensions in which the particular content is laid out. Some species may be Flatlanders; others may be perceptive and mobile in at least a fourth spatial dimension. Their time-streams, too, may be dissimilar. A thousand years in the sight of one may be as yesterday in that of another. Indeed, in that of a man transferred to a galaxy moving at approximately the speed of light, a hundred thousand would be but as two, physiologically, psychologically, and in the number of times he had to wind his watch. Some races may have dominant senses, like canine smell and human sight, in terms of which they do the greater part, not only of their perceiving, but of their thinking and evaluating. A mystical dog, for example, would be rapt away in a beatific odor. Of observed differences in the performance of organic functions and in the possession of extra senses, like the "homing" in dogs and pigeons, we have abundant hints in terrestrial animals.

Again, Haldane has considered the possibility and implications of non-spatial purely temporal, intricate and diversified streams of self-consciousness. But could such persons without awareness of anything *outside*, be aware of anything *beside*, themselves? Must not discarnate spirits, who presumably have shed space along with their bodies, be solipsists?

Also, Spinoza's theory of Infinite Attributes suggests other than spatio-temporal modes of sense-perception. Still, Saucerians unaware of their extension would figure as modifications of it, i.e., as bodies, in the experience of those conscious of it. And the latter would appear as modifications of such of their other attributes as, unperceived by themselves, the others perceived. In any case, we will assume that all the Saucerians are present in some guise in one another's perceptual fields, which we will regard for our purposes as spatio-temporal. We will further assume that the content of these fields is sufficiently intersubjective and communicable to form a continuum and to permit a common objective reference to one and the same world. These and the other assumptions we shall make are arbitrary and may cover only a fraction of the possibilities of intelligent life, just as our observation of the space-time continuum, forever restricted by the finite speed of light and by the reduction of its frequency to zero and of its wave-lengths to infinity after traversing a thousand seven hundred and fifty million light-years, covers but a fraction of a whole, which may conceal beyond our horizons we know not what. Our Interplanetary Congress is, then, at the most no more than divisional, or perhaps no more than the meeting of a local philosophy club.

As the fruit of having probably to deal, as man does, with a universe in part friendly, in part hostile to his interests, and with a conflict of individual wills and acts within the species itself, we shall endow all the Saucerians with pleasure and pain and with a knowledge of good and evil, awakened, however, in different ways and by different circumstances in each race. Possibly some species, like souls in Paradise, are self-determined to the good only and, freed from virtue along with vice, find morality meaningless. Aristotle noted the immunity of the gods to the exigencies of ethics. But with such we shall not reckon.

But may not some species transcend a moral order, because of the absence rather than the perfection of social organization? The answer depends upon whether or not *all* self-consciousness, like human, is essentially social and dependent from the beginning upon the recognition of a plurality of selves. If there can be no *ego* without an *alter*, non-social species are ruled out, and furthermore, support is given to a polytheistic rather than a monotheistic type of personal theism. When a student at Oxford, I noted this support in a paper entitled, I think, "The Social God," read before an undergraduate philosophical club. But I was at once accused by my Anglican friends, including a future archbishop, of trying to americanize the Godhead.

To be sure, some human philosophers and theologians maintain that a personal God can exist without other persons from whom to distinguish and with whom to identify himself. But this smacks of the fallacy of honorifics, that is, of supposing that modification by eulogistic terms and prefixes, especially if surcharged with mystery, can somehow alter without changing the meaning of a word and sanction and even sanctify its equivocal use. Of this semantic schizophrenia we may regard the concept of non-social but nevertheless self-conscious and personal Saucerians an example without benefit of clergy.

The occasions of pleasure and pain and of natural and moral good and evil, the emotional and behavioristic responses to them, and the ways of life personal, moral, social, political, economic, and cultural on the different planets may be very diverse. Species feeding by blood transfusion or procreating a-sexually, can scarcely have the same general set-up as those reproducing sexually and endowed—or encumbered—with viscera. And among the latter, different methods of sexual propagation and of nutrition will produce different emotional evaluations and social and moral systems. Haldane has noted the effects that even periodicity rather than the uninterrupted persistence of sexual desire in man would have on human relations, institutions, and ideals.

Although aesthetic sensitivity is, as Aristotle remarked of pleasure, a work of supererogation on nature's part, we shall attribute it to all the Saucerians, subject to variations in degree, sources, and expression in works of art. Nor should we deny them a sense of humor and an eye for the comic value in their own conduct and that of the universe. Religious experience, also, to which Plato and Plotinus considered aesthetic the immediate prelude, may be possessed by them all in its varieties and subvarieties, mystical, impersonal, and personal; constant, however, in revealing something in the real man calls God. Like aesthetic sensitivity, it may differ in degree and kind in different races and individuals. And like aesthetic it may be disparaged on moral grounds by those deficient in it, as an escape from reality that leads only to illusions not only superfluous but opposed to welfare and progress on the planet in question. But like aesthetic, it will be to those who possess it an access to reality that makes all the difference in their lives. To them it will be their deepest and highest attachment to the real—of all experiences the one most worth living and, if necessary, dying for.

Irreducible to other values yet supervening upon them all, it will probably have enlisted them everywhere as auxiliaries. On every planet there may be revelations, incarnations, redemptions, eschatologies, rites, ceremonies, and sacraments fortified by theological beliefs (which are often mistaken for religious experience and substituted for it), all designed to relate the rest of the real to the divine, and especially to overcome the estrangement of the finite individual from God. These doctrines and measures, the fruit perhaps of a long evolution of religious experience and beliefs from primitive beginnings, will be suitable to the nature and needs of each species.

We shall also credit all the Saucerians with a desire for knowledge for its own sake, disinterested in the practical results and the moral and religious implications of its findings. For, an unbiased search for truth is of the essence of higher intelligence, and without the theoretic, there can be no more than hand to mouth practical sciences. We may suppose this curiosity also to have given rise to philosophical as well as scientific hypotheses. But in them it will have been more harassed by the lobbying of moral, religious, and economic pressure groups, and will have produced systems more expressive of these interests than of a desire to know things as they are. Incidentally, such systems invert the relation between the pure and the applied sciences. In science the findings of a disinterested search for truth censor wishful thinking and restrain its enactment in practice. In "interested" philosophies wishful think-

ing censors the search for truth and limits what may be entertained in theory. Since the total perspectives of all kinds of Saucerians may have suggested the same variety of theological and philosophical interpretations of their contents, we may expect all the spaceships to have landed their planetary quotas of all the "isms" and "ists" man has so far produced on earth.

Having examined the birth-certificates, passports, academic degrees, contributions to the sum of saucerian knowledge, and other credentials of the delegates, we will now call the Congress to order, or rather disorder. For, if the most violent and even murderous antipathies of *homo sapiens* are typically saucerian, the first reaction of the members will be one of horror at one another's physical looks, preferences, and habits. We can imagine the scene—a hall full of a variety of anthropoid and other mammalian types, as well as those of apparently insect, arthropod, reptilian, saurian, cephalopod, avian, and piscene origin, not to speak of still others defying terrestrial biological classification; all recoiling from one another with the gestures of aversion characteristic of their kinds. However, by straining the imagination, we may imagine these animal prejudices in part overcome, thanks to the comparative biologists, physiologists, and psychologists.

But there will be another outburst when the delegates compare their religious, moral, social, political, and economic ways of life. Each planet will have regarded its as not only relatively but absolutely best, and will be outraged when confronted with others quite different in many or all respects, but equally well founded naturally and recommended supernaturally. There will also be a subsidiary tempest in a teapot excited by divergent opinions as to what in both nature and art should give aesthetic pleasure—the human form divine, for instance, appearing ludicrous, misshapen, and disgusting to other Saucerians.

A little common sense, however, administered by the comparative ethnologists and sociologists, will suggest that there can be no question of better and worse between the ways of life of the different species. Each will be pursuing the good proper to its kind, and none can be blamed for not pursuing that of another, or be judged with reference to other than the perfection indicated by its particular nature. These perfections are incommensurable, since what one race finds deficient in another may be compensated by something itself lacks. Thus the seeming absence in the life of Wells' Martians of the romance and conviviality that so enrich human existence may be offset by spiritual riches unknown to man. Moreover, judging from human experience, no species wishes to be other than itself or to realize other than the possibilities of its own

nature. Plato remarked that no sensible man wants to be an oyster in spite of advantages enjoyed by the latter. But he failed to remark, and here some ostracean Plato might have given him tit-for-tat, that no intelligent oyster wants to be a man.

Once the arrogant myth of a superior race—a *Herrenvolk*—of Saucerians with a superior way of life and a privileged place in the universe, the measure of all things, even of God, has been exploded and all have confessed their equality in the sight of the real, constants may appear in their various ways of life and points of view. These will perhaps be perceived first by the scientists, who may find their planetary hypotheses in all fields supplementary and reciprocally corrective. Also, in many cases representatives of the same schools and subdivisions of philosophy may discover that their planetary differences of opinion are superficial and can be easily reconciled. Even the moralists may be brought to confess that the same ethical principles are ubiquitous and enduring, in spite of the different and changing patterns of right and wrong behavior with which they are interwoven on the various planets. The Golden Rule, for example, and the virtues that implement it, supplemented by a recognition that one person's meat may be another's poison, may prove a counsel of perfection for all Saucerians. At the same time the Congress will perhaps agree with Aristotle that ethics is an inexact science.

The behavior of values in general, because of its eccentricity, should interest interplanetary axiology. If values are absolute and exist apart from saucerian evaluations, we might expect truth, beauty, and goodness to coincide in a kind of Platonic Form of the Good displayed, even if through a glass darkly in finite perspectives, nevertheless as a unit whose components imply one another and always appear together to the same degree. But if the human perspective is typically saucerian, this is not the case. There values not only are blurred, but exist independently of, and even in antagonism to, one another. Both more and less of the real may look intelligible than looks good and beautiful, beautiful than looks intelligible and good, and good than looks intelligible and beautiful. Furthermore, truth may outrage moral and aesthetic sensibility, art morality, morality art, and morality, at least, may seek to suppress truths of which it disapproves. Again, though the personal variety of the religious value is combinable with the others, the impersonal transcends both natural and moral good and evil, and the mystical, if pure, transcends them all. What does all this mean? Would the same eccentricity obtain in transfinite evaluations of the real? Almost certainly, if the real is tychistic and infected with obstructions, material or spiritual, that limit, it may be

unevenly, foreknowledge, predestination, and the accomplishment of purpose. If the real is not, then saucerian vision is, perhaps, to different degrees among the different species, nearsighted and astigmatic.

We pass now to the interplanetary theologians and metaphysicians. They also will be able to compose to a larger extent the planetary disputes within their respective schools and present united fronts at the Congress. For example, the monistic idealists can agree, thanks to the ability of the Absolute to dispose of contradictions. But among the pluralists there will be dissension between the severed worm types and the adherents of Berkeley. The former, being segments of the soul and personality as well as of the body of the parent, will disagree with the latter, whose method of propagation involving no psychological continuity between successive generations permits the opinion that spirits have no forebears but are specially created entities. Not only will this view contradict their personal experience, but they can point out the discrepancy in it between the way spirits originate and the concatenation in the divine mind of the ideas constituting their bodies. Perhaps a compromise can be found in the doctrine of traducianism modified to allow both conscious continuity and discontinuity with the spirit of the parent. This would correct the inconsistency in the Berkeleian theory and interrelate the spirits of successive generations of the same family as the ideas constituting their bodies are related.

Moreover, dividing instead of dying when they break up, and passing on intact their spiritual as well as their material substance to their segments, the severed worm types will complicate interplanetary eschatology. They will be subject to destruction by "acts of God," and familiar, it may be, with natural death in their lower animals, but they will associate immortality only with segmentation. Hence they may be surprised at finding higher forms of intelligent life also subject to death, and may be sceptical of the belief that the latter survive it whereas the lower animals do not. Reincarnation they will regard more favorably, as a hop-skip-and-jump version of their own views. On the other hand, perishable species may be shocked by the evidence of a passing on but not away unprovided for by their beliefs. Also they may disagree as to the desirability and the most probable form of survival. A questionnaire on the subject once circulated by Schiller elicited a variety of answers from human beings alone. Then, too, some may bear out Metchnikoff's idea that a wish for non-survival may occur in those who, instead of being cut off in the flower of their old age, live out the life-span allotted to their species and find towards the

end death natural and desirable. Hoyle, for example, thinks that at the end of 300 years or so he would get tired of being himself. Possibly on some planets a more advanced parapsychology and understanding of the relation between mind and body may have provided more information on the subject to bring before the Congress.

The mystical and impersonal theists will have little to dispute about, but the personal ones will have much. The latter will believe, each that his planetary god in whose image his species is created, and who shares and protects its special interests, is the God of the entire universe. Confrontation with other, differently constituted gods backed by equally authoritative vouchers will create an awkward situation. For all such gods will be tribal and equally fitted or unfitted to monopolize a cosmic role. Nevertheless these planetary variables may reveal a personal constant endowed with attributes valued throughout all worlds as divine. An interplanetary personal *theology* may then be constructed. But it will have to be so abstract that its constant will scarcely work pragmatically as one and the same *experienced* personal God for all Saucerians alike, commanding their religious sympathy and devotion as well as their theological assent.

This difficulty is illustrated by the impossibility of representing satisfactorily such a God in an interplanetary religious art. True, the dull and distasteful in the subject matter of human religious art may be so "distanced" by previous religious associations as to be convertible into a source not only of aesthetic pleasure but of further religious inspiration. But the sensible representation of an interplanetary deity will have to combine the fundamental differences in structure and to appeal to the different dominant senses of the various saucerian races without accenting the distinctive features of one more than those of another. The result will be a graven or painted image either so surrealistic and complex or so composite and unspecific as neither to express nor to reinforce the religious experience of any planet, despite the aesthetic satisfaction it may give as a work of art.

This experience will continue to be communion with a person unmistakably akin to the species in question; each star having, as Plato suggested, its own god. And religious art on every planet will bear out the observations of Xenophanes. Interplanetary monotheism may, then, seem an interpretation of planetary religious experience of the personal variety dictated by other than religious purposes—as, for example, the principle of economy. Still, both Hume and William James did not consider polytheism a multipli-

cation of principles of explanation beyond what is necessary in the human perspective alone.

The presumably teleological direction of the world-process by an interplanetary personal deity will also run into trouble. In addition to the planetary puzzles of distinguishing, *prima facie*, teleological from non-teleological natural processes (to the Epicurean gods the partly mechanical, partly tychistic movement of the atoms in space must have seemed an exhibition of infinite wisdom, goodness, and power) and of inferring from the behavior of the universe its purpose, there will be that of relativity to different frames of reference. What appears beneficent relatively to one may appear malefic relatively to another, and indifferent relatively to a third. So, too, with wisdom and power. Moreover, a plus in the exhibition of one divine attribute may suggest a minus in that of the others—unlimited power a deficiency in wisdom or goodness or both, and vice versa. And the possible combinations of plus and minus in the relation of these attributes to one another, may be rung over and over again in millions or billions of different perspectives.

This difficulty can be dealt with by invoking the Leibnitzian principle of compossibility. The interplanetary purpose of the world-process, it may be said, is to obtain the greatest possible variety of Saucerians consistent with the greatest possible moral order; that is, with the greatest possible impartial distribution of happiness among the inhabited planets at the least possible sacrifice of the interests of one species to those of another. Hence the dysteleology that infects all the island-universes is a proof that all things are ordered for the best, and the more widely distributed evil is, the surer all Saucerians can be that nothing could be better for all concerned.

Compossibility, however, also supports the hypothesis of a plurality of equally beneficent and powerful purposes either pulling against one another or pooling their particular interests and resources in order to get the best all round results. Aristotle, we may remember, was uncertain whether the behavior of the universe could be explained by the attraction of a single "beloved" or required that of fifty-five unmoved movers compounding their cross-purposes.

This new interplanetary contribution to the defense of teleology will be welcomed by the saucerian pluralistic idealists as additional compensation for their lack of realistic explanations, like intractable matter, of the prevalence of dysteleology throughout the galaxies. Indeed, some of them, suspicious of the adequacy of the stock idealistic excuses for evil, like honorifics or the misuse of free-

will in contravention of divine law, may throw dispersed teleology into reverse and invoke malevolent spiritual activity as an explanation. And they may wonder whether it indicates a single evil purpose distracted by a number of equally attractive ways of thwarting the divine, or several evil spirits conspiring to that end. For this wonder they will have precedent. Whereas Aristotle was undecided as to whether it took one or fifty-five gods to make the world go round, Plato was uncertain as to the number of evil world-souls it took to make it wobble.

The persistent haunting of the saucerian personal theists by polytheism is noteworthy. It appears first in the seemingly plural and social nature of *all* self-consciousness and personality. It cannot be exorcised by theological and metaphysical incantations from the personal variety of religious experience, and it materializes for better or worse in attempted teleological explanations of the behavior of the real relatively to different frames of reference. Also, perhaps the seeming independence of values on one another and their lack of co-operation may be its rappings.

The idealists will be the worse haunted by polytheism, as its apparition will have raised for them the ghost of a difficulty supposedly effectually smothered by honorifics. Saucerian experience seems to be of something other than, and existing independently of, itself, which guarantees participation by the experients in the *same* seemingly objective world. For the idealists this something can only be more experience (since nothing exists but *percipere* and *percipi*), which they locate in a divine mind. But what is the divine experience *of*? The answer can only be "of itself," since there is no further experience for it to perceive, and it is the experience in which all others terminate. But this depriving the divine experience of its objective "of-ness" and turning it from an extrovert into an introvert makes the term equivocal, with one meaning for God, another for the Saucerians.

Equivocation, however, since honorifics between equals confer no privileges, is impossible between divine minds, and the *percipi* of one has as much claim as that of another to be the common object of the others' *percipere*. If we try to preserve their co-equality by saying that the *percipi* of no one of them is the object experienced by the others, all will be solipsists, Leibnitzian windowless monads, but worse off for the want of pre-established harmony (for who is to pre-establish it?) to guarantee even the similarity, let alone the sameness, of what they are perceiving. Shall we then play no favorites and say that all equally perceive one another's perceptions? But in that case they will be no better off. They will be playing a celestial game of "thimble, thimble, who's got the

thimble." For there will be as many thimble-ideas as there are divine minds, and whose idea is the "real" objective thimble to which all other thimble-ideas refer will be an everlasting question. Again, whose divine thimble is the common object of saucerian perception? If Berkeley had not disqualified the divine mind by honorifics it would have had to play the game with human and other saucerian spirits with no one winning. It may be argued, therefore, that for an object to be *common to* and the *same for* a number of minds it cannot be located in any one of them and must exist independently of being experienced.

Interesting, too, is the little light religious experience, for all its importance, sheds upon the nature of the real. God is at least a value common to a variable conscious content. But this, being at variance with itself, lends itself to conflicting theological and philosophical interpretations and inferences therefrom as to the character of reality. What is it that on every planet reveals itself to some as a person or persons, the image of themselves made perfect, in whose presence they are at rest; to others as the peace given by the impersonal grandeur of the vision of all things under the aspect of eternity or by the evening silence in the forests and the calm above the mountain tops; and to still others as the ineffable bliss of self-obliteration in Nirvana, nothingness relatively to all else but in itself so positive it turns all else to nothing? Nevertheless the co-equal majesty and the co-eternal glory with which the varieties of religious experience invest the real are no superficial and fictitious splendor. In the innumerable worlds in which the innumerable forms of intelligent life emerge, they consummate in their several ways and appropriately to each species the union existing between mind and the rest of nature.

The partial estrangement of these worlds and forms from one another by barriers of incommunicable experience may have suggested to the Saucerians a question once raised, if I remember rightly, in a conversation with Santayana. May there not be other reals than ours in no relation whatsoever to it or to one another,—isolated totalities of existence hermetically sealed, like ours, within themselves? And may they not be differently constituted and exemplify the variety of metaphysical construction attributed to ours by different philosophical systems? However that may be, though the proper study of mankind or of any other kind can no longer be itself, sufficient unto that study is the nature of the real to which man and the other Saucerians happen to belong.

The results may seem disappointing. In spite of the increase in scientific knowledge, fundamental metaphysical problems will remain unchanged and as far from solution as ever. The real will

continue its untidy habit of slopping over, as a colleague of mine once expressed it, any philosophical or theological system into which one tries to pour it. And to tidy up things, especially in systems designed to provide a hypothetical real satisfactory in all respects to all Saucerians, superfluous and negative instances will continue, as in the past, to be explained as flaws incidental to finite perspectives rather than as signs of anything amiss or awry in the rest of reality. But are not the perspectives themselves parts of the real, and their flaws its? And does not the mere *having to show* that "all's right with the world" show that something is wrong with it, and involve justifying the necessity of justification *ad infinitum*? The interplanetary will doubtless echo the old planetary answer—that negative instances can be immediately and once and for all justified and removed by sufficient faith in their non-existence. This popular and convenient method of disposing of them can, however, be used with equal reason by the adherents of all systems as a counter-move against criticism, and can thus end all discussion in a philosophical or theological stalemate.

We may expect, therefore, the delegates to disband still convinced of the superior probability and the absolute truth of their respective hypotheses. But from now on they will have to wear their beliefs with a difference. For the Congress will have effected one spiritual revolution from which none can escape. It will have redressed the lop-sidedness of the universe by making the base of the Attribute of Thought, to put it in Spinozistic terms, coextensive with the Attribute of Extension.

The history of the human perspective in this respect is instructive and probably typical of many saucerian frames of reference. For a long time the restricted amount of supposed saucerian mind in the universe—that of the human species alone—was in proportion to the restricted amount of space-time the universe was supposed to contain. Then all restrictions were suddenly removed from the amount of space-time and from the number of probably inhabited worlds, but with no counterbalancing increase in the amount of supposed saucerian mind, which remained restricted to the planet Earth. To be sure, the possible spatio-temporal scope of human thought was indefinitely enlarged. But the spiritual significance of its amplification was minimized, and the implication that intelligent life might exist in other forms in other worlds was ignored as not only fantastic but prejudicial to faith and morals. Hence the Attribute of Thought remained geo-centric and Ptolemaic in its idea of the extent of its base, after its idea of Extension had become post-Copernican.

Interplanetary travel, to be sure, may have already acquainted many species with the dispersion of thought in various forms throughout the universe, and thus brought the two Attributes into balance in their perspectives. Others regarding it as probable may have modified their thinking accordingly. But to the rest, including man, who so far has only toyed with the idea in flights of the imagination, the certainty that intelligent and moral life has developed in other worlds in all sorts of ways other than theirs, will be more upsetting than the post-Copernican astronomy, the Darwinian and Freudian discoveries, and Einstein's theory of relativity have been on earth. Henceforth there can be no reducing the real to a little theatre for the strutting of a single species declaiming lines composed with a view to featuring itself as the star of the cosmic drama. From now on every inhabited world will have to live enlightened by the knowledge that it is but one of many going their several ways of self-fulfilment; and all planetary thinking will now have to be interplanetary in scope and scale, viewing and evaluating the real through a thousand eyes instead of one, and accepting humbly the implications for itself of the wider vision.

The universe thus revealed will not only acquire more majesty and more mystery, it will be friendlier. The starry heavens will inspire in each species an added awe for knowing that it is no lonely watcher of a wasteland of all space and time lifeless except for itself, and that where light is there also is life akin to its own. And could that light speak, it might whisper that more than a thousand million years ago, when the creation of man was just beginning in the warm shallows of a pre-Cambrian sea, the same questions and answers as agitate the human mind today were being asked and answered in some galaxy from which all life has long since departed. And aeons hence the astronomers of some race of Saucerians whose evolution has not yet begun, detecting the faint glow of a galaxy incredibly distant at the very edge of the forever invisible, may decipher its message—that once upon a time on a lesser planet of a minor solar system in that galaxy an extinct form of intelligent life, perhaps mediocre compared with theirs, was also wondering what it is all about.

B. A. G. FULLER

UNIVERSITY OF SOUTHERN CALIFORNIA

BOOK REVIEW

The Counter-Revolution of Science; Studies on the Use of Reason. F. A. HAYEK. Glencoe, Illinois: The Free Press. 1952. 255 pp. $4.00.

In this interesting book—its contents first appeared as separate articles, chiefly in *Economica*—Professor Hayek constructs a methodological underpinning for the critique of current social theory and economic policy he published earlier, particularly in his *The Road to Serfdom*. The first of its three parts seeks to establish certain fundamental differences between the methods of the natural and social sciences. It argues that "scientism"—the assumption that the methods of the former disciplines are identical with those of the latter—is an abuse of reason, and is the intellectual foundation for all variants of contemporary socialism. The second part is a study in the history of ideas. It locates the source of modern scientific *hubris* in the École Polytechnique; it traces the development of scientism in the writings of Saint-Simon, Comte, the Saint-Simonians, and their more recent progeny; and it includes a plea for a thorough education in the humanities as part of the indispensable equipment of social scientists. The third part is a brief comparative study of Comte and Hegel. It argues that despite glaring differences in philosophic method, both men share some basic tenets of scientism, so that in consequence their totalitarian social philosophies are essentially similar. Mr. Hayek does not maintain that the spread of scientism is solely responsible for the decline of classical political and economic liberalism. But he does believe that the influence which ideas have in the long run cannot be overestimated; and he thinks therefore that "it is our special duty to recognize the currents of thought which still operate in public opinion, to examine their significance, and, if necessary, to refute them." His book is a contribution to this three-fold task. His essays in the history of ideas are unusually informative and suggestive, though far from conclusive in their claim that French scientism has been of fundamental influence on German, British, and American social thought. However, the remainder of the present review will deal exclusively with the analysis contained in the first part of the book.

According to Mr. Hayek, scientism in the social sciences is characterized by what he calls "objectivism," "methodological collectivism," and "historicism," in contradistinction to the "subjectivism," "individualism," and "theoretical" approach of a sound social science methodology. In brief summary, his argument is as follows. The natural sciences aim to ascertain the "objective

facts'' of nature as these occur in independence of anyone's beliefs or opinions, and they eschew all theories which invoke directive minds to explain phenomena. The social sciences, on the other hand, must employ a ''subjective'' method. For in the latter, the relevant ''facts'' do not exist apart from the beliefs and attitudes of individual men, and men's social behavior is the outcome of such mental states. In consequence, social processes are intelligible to us ''only because the object of our study has a mind or a structure similar to our own''; and though social phenomena are in general not the planned outcome of human decisions, the central task of the social sciences is to explain patterns of social behavior as the unintended resultants of psychic states and dispositions—of mental occurrences which are not definable in physical terms, and which are familiar to us solely from our own subjective experiences as volitional agents. In the second place, the natural sciences take their point of departure from the direct observation of complex wholes, which are then explained in terms of ''inferred'' elements that are neither observable nor definable by means of immediately experienced sensory qualities and that are postulated to possess only purely abstract relational attributes. In the social sciences, on the other hand, quite the contrary is the case. Their ultimate explanatory elements are the subjectively ''understandable'' psychic states of individuals; and the complex wholes of social science are never matters for direct observation, but are patterns of action that can be identified only by means of theory and that require to be explained as arising from the unplanned combination of immediately accessible psychological acts. The natural sciences are thus ''analytic'' while the social sciences are ''compositive'' or synthetic. But the failure of scientism to recognize this, and the assumption that it is the task of social science to discover the laws for the development of assumedly given ''concrete'' social wholes, leads in the third place to historicism—to the conception that history is the only road to theoretical science of social phenomena, and to the denial of the possibility of a social theory which (because it is concerned with abstract and repetitive features of social processes) is applicable to all historical periods. Moreover, this failure also leads to the view that all social theory is *zeitgebunden,* and (because of a lack of a compositive theory of social phenomena to explain how independent individual actions of men can nevertheless produce coherent and valuable structures of social relationships) to the notion that all orderly and justifiable social arrangements must be the products of overt social planning. Two fundamentally different and irreconcilable attitudes are thus manifested in social inquiry: ''On the one hand the essential humility of individualism,

which endeavors to understand as well as possible the principles by which the efforts of individual men have in fact been combined to produce our civilization, and which from this understanding hopes to derive the power to create conditions favorable to further growth; and, on the other hand, the hubris of collectivism which aims at conscious direction of all forces of society" (p. 91).

There is much in Mr. Hayek's discussion that suggests that for him the method and psychological preconceptions of classical marginal utility theory in economics are paradigmatic for all social inquiry. There are prima facie good reasons for regarding as doubtful such a proposed methodological standard for all of the social sciences, especially since within economics itself the scope and value of that theory are in serious dispute. But however this may be, Mr. Hayek has not made out a firm case for the fundamental difference in method of the natural and social sciences.

Consider first his claim that the social sciences are wedded to a "subjective" approach in contradistinction to the "objective" one of the natural sciences. Even if one grants the assumption that the ultimate explanatory elements in the former are subjective mental states, must not the social scientist endeavor to establish just what these states are, and when and where they occur, in accordance with the same standards of objective validity that are canonical in the natural sciences? Mr. Hayek admits as much, but believes nevertheless that since the springs of action we impute to other men can be grasped subjectively and from the "inside," while nothing comparable can be said for the fundamental explanatory elements of the natural sciences, an unbridgeable difference remains. But even if there may be a difference, the difference does not appear to be in *method* but in the specific *characters* of the explanatory materials. When the desire to maximize profits is imputed to participants in some economic transaction, the fact that the economic theorist "subjectively understands" what it is to have such a desire patently does not establish the validity of the imputation. If the imputation is to be warranted, fairly complicated and "indirect" processes of verification—not different in principle from those employed in the natural sciences—must first be instituted. Is not Mr. Hayek confounding the genesis of our ideas with their validity when he supposes that because the alleged ways of hitting upon the ultimate explanatory data in the natural and social sciences are different, the canons for validating assumptions concerning the existence and operation of those data must also be different? Moreover, Mr. Hayek's hostility to behaviorism carries him to dubious extremes. Why must the consistent behaviorist deny himself the right to study the reactions of persons to a given red patch, and instead concern him-

self solely with the effects of a light wave of a certain frequency on a particular point of the retina? Mr. Hayek's natural scientist appears to be modeled on an idealized micro-physicist, and his consistent behaviorist on a bio-physicist or bio-chemist—straw men, introduced into the present discussion and manufactured for purpose of easy demolition. And is it the case that social phenomena are intelligible only to the extent that the individual actors participating in them possess a mentality like our own, since otherwise we would be unable to "subjectively understand" the springs of action that are involved? Must a psychiatrist be at least partially demented to study successfully the mentally ill? Are emotionally stable social scientists incapable of understanding the causes and consequences of mass hysteria, of institutionalized sexual orgies, or of the social manifestations of pathological lusts for power? Must one be a cannibal to understand cannibalism? Mr. Hayek's defense of the so-called method of "verstehen" as central to and distinctive of the social sciences is no more convincing than are similar defenses by other writers.

Consider next Mr. Hayek's contention that while the natural sciences proceed from directly observed wholes to inferred and unobservable explanatory entities, the procedure of the social sciences is just the reverse. He himself admits in so many words that this characterization of the natural sciences is considerably less than accurate in the case of astronomy. But it is equally inaccurate as an account of the invariable procedure employed in other branches of natural science—unless indeed he identifies, as his criticism of behaviorism suggests that he does, explanations in the natural sciences exclusively with explanations in terms of microscopic theories. Thus, for classical mechanics, for pure thermodynamics, for what is sometimes called "phenomenological" electro-dynamics, Mr. Hayek's statement of procedure is adequate only when qualified almost beyond recognition; and geology as well as biology are obvious examples of natural science in which many complex "wholes" that are the objects of study are not data for direct observation, but are theoretical "constructs" out of more familiar observable components. But conversely, it is far from clear that the subjective states which Mr. Hayek assumes to be the ultimate explanatory materials of the social sciences are uniformly capable of immediate apprehension and recognition, or that all social structures and "wholes" are unobservable theoretical constructs. Are human *attitudes* (as distinct from their specific *manifestations*), which he counts among the "subjectively understandable" data of the social sciences, really accessible to direct introspection? Are they not rather dispositional attributes, which are postulated in order to account for cer-

tain manifest behaviors, and which are therefore "theoretical constructs" logically on a par with such "unobservable" matters as elasticities, resistances, and valences? Moreover, is it the case that we can never observe such social structures as patterns of ritual and ceremonial behavior, the organization of family and communal life, or the operations of educational, industrial, and military systems? To be sure, such observation is not instantaneous, it requires selective attention, and it acquires cognitive significance only when conducted within the framework of some "theory" or system of ideas. But in these respects at any rate the situation is not different for observation in the natural sciences. The truth thus appears to be that what Mr. Hayek calls the analytic and compositive methods are employed in both the natural and the social sciences, so that neither method can be taken as distinctive of either branch of inquiry.

Consider, finally, the claim that the importation of the methods of the natural sciences into the social ones leads to historicism and to unwarranted conceptions of wholesale social planning. As to the first part of this contention, it is perhaps sufficient to observe that since those methods do not eventuate in historicism in the natural sciences, it is not obvious why their use in social inquiry should necessarily do so. And in fact it has not done so in the case of many students who believed themselves to be extending the logic and even the techniques of the natural sciences into the province of the social disciplines; for example, to mention but a few men, the charge of historicism cannot be justly leveled against J. S. Mill, or Pareto, or the increasing number of contemporary sociologists who are seeking to develop mathematical theories of social processes in the spirit of theoretical physics. Moreover, the historical evidence Mr. Hayek cites to show the intimate association of historicism and French scientism really proves nothing, and his argument is at best but an illustration of the *post hoc* fallacy. Nor is it clear why the methodology of a natural science which rejects explanations in terms of directive purposes should be incapable of accounting for coherent and valuable social arrangements except as products of overt planning. On the contrary, the presumption is that students committed to such a methodology are just the ones to search for mechanisms that do not involve directive foresight, when attempting to account for the emergence and the operation of apparently teleological systems. Certainly biologists learned long ago to dispense with vitalistic forces in their analysis of organic structures; and recent developments in the theory of servo-mechanisms make it evident that teleological behavior can in principle be understood without benefit of any hypothesis of conscious guidance. And inversely, it is not beside the point to note that theories of planned economy

have been developed within the framework of marginal utility analysis—and therefore within the framework of methodological preconceptions that Mr. Hayek believes are distinctive of the social sciences and so allegedly different from scientism.

Accordingly, if these various remarks are well taken, Mr. Hayek has not established his central contentions—neither his thesis that the natural and the social sciences employ radically different methods, nor his claim (despite the historical evidence he marshals) that socialism and authoritarianism are logically related to scientism. His book is nevertheless full of acute and valuable comment and criticism. His discussion of the logical defects of historicism could hardly be bettered, his insistence on the possibility and indispensability of "abstract" social theory is eminently sound and timely, and his critique of various epistemological assumptions underlying current sociology of knowledge is salutary and in the main telling. But Mr. Hayek's basic concern is with the alleged limits of desirable social planning and with the warranted scope of deliberate control of social processes; and his real quarrel with scientism stems from his belief that those who are imbued with the spirit of the natural sciences fail to recognize that there are such limits, and are therefore frequently in revolt against what he regards as the sound teachings of the moral sciences. Mr. Hayek may of course be correct in his views as to the existence of such limits and as to what those limits are—this is not the issue under consideration in the present review. However, to establish these views considerations different from those advanced in this book must be adduced, for he has not shown that a tendency to transgress those supposed limits flows from scientism. He has certainly not made good his claim that the extension of the methods of the natural sciences into social inquiry is an abuse of reason.

ERNEST NAGEL

COLUMBIA UNIVERSITY

NEW BOOKS AND CURRENT JOURNALS

ARISTOTLE: *Aristotle's Ethics for English Readers.* Rendered from the Greek of the Nicomachean Ethics by H. Rackham. New York: Barnes & Noble [1952]. 176 p. $2.50.
First printed 1943.

BOEHNER, PHILOTHEUS, O. F. M.: *Medieval Logic; an Outline of Its Development from 1250 to c. 1400.* Chicago: University of Chicago Press [1952]. xvii, 130 p. $3.00.

CARVER, GEORGE A., JR.: *Aesthetics and the Problem of Meaning; the Application to Aesthetics of the Logical Positivists' Verifiability Criterion of Cognitive Meaning.* New Haven: Yale University Press; London: Oxford University Press, 1952. ix, 90 p. (Undergraduate Prize Essays: Yale University. Vol. IX.) $2.50.

CASTELLI, ENRICO: *I presupposti di una teologia della storia.* Milano: Fratelli Bocca [1952]. 204 p. (Pubblicazioni dell' Istituto di Studi Filosofici—Roma. Serie II—N. 1.) L. 900.

DE CAMP, L. SPRAGUE, and LEY, WILLY: *Lands Beyond.* New York, Toronto: Rinehart [1952]. 346 p. $3.50 (college ed.).

FURLONG, GUILLERMO, S. J.: Nacimiento y Desarrollo de la Filosofía en el Río de la Plata, 1536–1810. Buenos Aires: Editorial Guillermo Kraft Limitada [1952]. 758 p. (Publicaciones de la Fundación Vitoria y Suárez.)

FUTEHALLY, ZEENUTH: *Zohra.* A Novel. Bombay: Hind Kitabs [1951]. 325 p. Rs. 7–8–0.

GUNN, ALAN M. F.: *The Mirror of Love; a Reinterpretation of "The Romance of the Rose."* Lubbock, Texas: Texas Tech Press, 1952. xvi, 592 p. (Texas Technological College Research Publication in Literature.) $5.00.

HALL, EVERETT W.: *What is Value? An Essay in Philosophical Analysis.* New York: Humanities Press; London: Routledge & Kegan Paul, 1952. xiii, 255 p. (International Library of Psychology, Philosophy and Scientific Method.) $5.00.

HAMILTON, CLARENCE H., ed.: *Buddhism; a Religion of Infinite Compassion.* Selections from Buddhist Literature. Edited, with an Introduction and Notes, by Clarence H. Hamilton. New York: Liberal Arts Press, 1952. xxviii, 189 p. (The Library of Religion, Vol. I.) Paper $1.75.

HESCHEL, ABRAHAM JOSHUA: *The Sabbath; Its Meaning for Modern Man.* With Wood Engravings by Ilya Schor. New York: Farrar, Straus and Young [1951]. 118 p. $2.75.

HOENEN, PETER, S. J.: *Reality and Judgment according to St. Thomas.* With an Appendix by Charles Boyer, S. J. Translated by Henry F. Tiblier, S. J. Chicago: Henry Regnery, 1952. xv, 344 p. (Library of Living Catholic Thought (Under the Direction of the West Baden College Faculty)). $6.00.

HOWELL, WALLACE S.: *I Know.* Lebanon, Ohio: Lebanon Press [1951]. vii, 244 p. (His *A Culture of Life,* Vol. II.) $3.00.

HYNDMAN, OLAN R.: *The Origin of Life and the Evolution of Living Things; an Environmental Theory.* New York: Philosophical Library [1952]. xxi, 648 p. $8.75.

JAFFA, HARRY V.: *Thomism and Aristotelianism; a Study of the Commentary by Thomas Aquinas on the Nicomachean Ethics.* University of Chicago Press [1952]. viii, 230 p. $5.00.

JORDAN, ELIJAH: *Business Be Damned.* New York: Henry Schuman [1952]. xiv, 267 p. $4.00.

KIMPEL, BEN F.: *Religious Faith, Language, and Knowledge* (*A Philosophical Preface to Theology*). New York: Philosophical Library [1952]. x, 162 p. $2.75.

LANTRUA, ANTONIO: *Giacinto Sigismondo Gerdil, filosofo e pedagogista, nel pensiero italiano del secolo XVIII.* Padova: Cedam, 1952. vi, 378 p. (Il pensiero moderno, collana di storia della filosofia, diretta da Carmelo Ottaviano. Prima serie, Volume quarto.) L. 3500.

LAPLACE, PIERRE SIMON, MARQUIS DE: *A Philosophical Essay on Probabilities.* Translated from the Sixth French Edition by Frederick Wilson Truscott and Frederick Lincoln Emory. With an Introductory Note by E. T. Bell. New York: Dover Publications [1952, copyright 1951]. viii, 196 p. Paper $1.25.

MACBEATH, A.: *Experiments in Living; a Study of the Nature and Foundations of Ethics or Morals in the Light of Recent Work in Social Anthropology.* The Gifford Lectures for 1948–1949. Delivered in the University of St. Andrews. London: Macmillan, 1952. xi, 462 p. $5.50.

MACDONALD, JOHN: *Mind, School, and Civilization; a Contribution to the Philosophy of Education.* [Chicago:] University of Chicago [1952]. xi, 132 p. $3.00.

MACROBIUS: *Commentary on the Dream of Scipio.* Translated with an Introduction and Notes by William Harris Stahl. New York: Columbia University Press, MCMLII. ix, 278 p. (Number XLVIII of the Records of Civilization, Sources and Studies. Austin P. Evans, Editor.) $4.00.

MAHADEVAN, T. M. P.: *Gauḍapāda; a Study in Early Advaita.* University of Madras, 1952. vii, 281 p. (Madras University Philosophical Series, No. 5.) Rs. 9.

MOUNIER, EMMANUEL: *Personalism.* [Tr. by Philip Mairet.] New York: Grove Press [1952]. xx, 132 p. $3.50.

O'FLAHERTY, JAMES C.: *Unity and Language: A Study in the Philosophy of Johann Georg Hamann.* With an Introductory Note by Walter Lowrie. Chapel Hill, 1952. x, 121 p. (University of North Carolina Studies in the Germanic Languages and Literatures. Number Six.) Cloth $3.00; paper $2.50.

PLATO: *Plato's Gorgias.* Translated, with an Introduction, by W. C. Helmbold. New York: Liberal Arts Press, 1952. x, 107 p. (The Little Library of Liberal Arts. Number Twenty.) Cloth $1.75; paper $0.65.

PLATO: *Socrates and the Soul of Man.* Incorporating Plato's *Phaedo* Translated by Desmond Stewart with an Introduction by E. A. Havelock. Boston: Beacon Press, 1951. 105 p. $2.00.

Plato latinus, edidit Raymundus Klibansky. Volumen II. Phaedo, interprete Henrico Aristippo. Edidit et prefatione instruxit Laurentius Minio-Paluello, praelector philosophiae medii aevi in universitate Oxoniensi, adiuvante H. J. Drossaart Lulofs. Londinii, in aedibus instituti Warburgiani, MCML. xix, 156 p. (Corpus platonicum medii aevi, auspiciis academiae Britannicae adiuvantibus instituto Warburgiano Londinensi unitisque academiis edidit Raymundus Klibansky, logicae et metaphysicae professor in universitate McGill ad Montem Regium.) £2.10.0.

QUEEN, STUART A., and ADAMS, JOHN B.: *The Family in Various Cultures; a Survey of Eleven Family Systems in Eleven Cultural and Historical Settings throughout the World.* Philadelphia [etc.]: J. B. Lippincott [1952]. vii, 280 p.

RADER, MELVIN, ed.: *A Modern Book of Esthetics; an Anthology.* Revised Edition, Edited with Introduction and Notes by Melvin Rader. New York: Henry Holt [1952]. xxxviii, 602 p. $6.00.

REINHARDT, KURT F.: *The Existentialist Revolt; the Main Themes and Phases of Existentialism. Kierkegaard, Nietzsche, Heidegger, Jaspers, Sartre, Marcel.* Milwaukee: Bruce Publishing Co. [1952]. vii, 254 p. $3.50.

ROBSON, ARTHUR: *The Eternal Truths of Life.* Adyar, Madras, India: Theosophical Publishing House, 1952. vi, 296 p.

RUNES, DAGOBERT D.: *Of God, the Devil and the Jews.* New York: Philosophical Library [1952]. 186 p. $3.00.

SAYERS, EPHRAIM VERN: *A First Course in Philosophy of Education; a Syllabus and Sourcebook.* New York: Henry Holt [1952]. xv, 399 p. $3.75.

SCIACCA, MICHELE FEDERICO (GORIANO DI GONA): *In spirito e verità; pensieri e meditazioni.* Brescia: Morcelliana, 1952. 305 p. L. 1000.

SIEGMUND, GEORG: *Schlaf und Schlafstörung.* Dülmen i. Westf.: A. Laumannsche Verlagsbuchhandlung [1948]. 79 p.

SMALLEY, BERYL: *The Study of the Bible in the Middle Ages.* New York: Philosophical Library [1952]. xxii, 406 p. $7.50.

SPINOZA, BENEDICT DE: *The Chief Works of Benedict de Spinoza.* Translated from the Latin, with an Introduction, by R. H. M.

Elwes. With a bibliographical note by Francesco Cordasco. New York: Dover Publications [1951]. 2 vols. in 1 (xxxiii, 387, xxii, 420 p.) $3.95.

STRAUSS, LEO: *Persecution and the Art of Writing.* Glencoe, Illinois: Free Press [1952]. 204 p. $4.00.

Introduction.—Persecution and the Art of Writing.—The Literary Character of the *Guide for the Perplexed.*—The Law of Reason in the *Kusari.*—How to Study Spinoza's *Theologico-Political Treatise.*

THOMAS, GEORGE F.: *Poetry, Religion, and the Spiritual Life.* Houston: Elsevier Press, 1951. 113 p. (The Rockwell Lectures, The Rice Institute, Houston.) $2.00.

Tulane Studies in Philosophy. Volume I. New Orleans: Tulane University, 1952. 112 p. $2.00.

T. V. Smith: Introduction to the Tulane Studies.—*Edward G. Ballard:* Reason and Convention.—*Richard L. Barber:* Universality and Meaning.—*James K. Feibleman:* Propositions and Facts.—*Carl H. Hamburg:* Philosophy—Mid-Century.—*Harold N. Lee:* A Criticism of the Marxian Interpretation of History.—*Louise Nisbet:* Formalism of Terminist Logic in the Fourteenth Century.

URBAN, WILBUR MARSHALL: *Language and Reality. The Philosophy of Language and the Principles of Symbolism.* [2d impression.] London: Allen & Unwin; New York: Macmillan [1951]. 755 p. (Muirhead Library of Philosophy.) $6.50.

VASWANI, T. L.: *Gita: Meditations* (Volume I). Poona: Gita Publishing House [1951]. 138 p.

VASWANI, T. L.: *A Prophet of the People* [Guru Nanak]. Poona: Gita Publishing House [1951]. 74 p. $1.00.

VECCHIO, GIORGIO DEL: *Justice; an Historical and Philosophical Essay.* [Tr. by Lady Guthrie.] Edited with Additional Notes by A. H. Campbell. Edinburgh: At the University Press, 1952. xxi, 236 p. (Edinburgh University Publications. History, Philosophy and Economics, No. 1.) 30/-.

VOLPE, GALVANO DELLA: *Eckhart, o della filosofia mistica.* Roma: Edizioni di Storia e Letteratura, 1952. xii, 273 p. (Letture di pensiero e d'arte.) L. 2000.

WEIZSÄCKER, C. F. v.: *The World View of Physics.* Chicago: University of Chicago Press [1952]. 219 p. $3.75.

"First published in German under the title ZUM WELTBILD DER PHYSIK by S. Hirzel Verlag, Leipsig, now in Zürich, Switzerland. The present translation by Marjorie Grene is based on the fourth enlarged German edition published in 1949."

WEYL, HERMANN: *Symmetry.* Princeton: Princeton University Press, 1952. 168 p. $3.75.

WRIGHT, GEORG H. VON: *An Essay in Modal Logic.* Amsterdam: North-Holland Publishing Company, 1951. vi, 90 p. (Studies in Logic and the Foundations of Mathematics; L. E. J. Brouwer, E. W. Beth, A. Heyting, Editors.) 9.- Cloth.

WRIGHT, GEORG HENRIK VON: *A Treatise on Induction and Probability.* New York: Harcourt, Brace & Co.; London: Routledge & Kegan Paul, 1951. 310 p. (International Library of Psychology, Philosophy and Scientific Method.) $5.00.

WULF, MAURICE DE: *History of Mediaeval Philosophy.* Translated by Ernest C. Messenger. Volume One: From the Beginnings to the End of the Twelfth Century. New York: Dover Publications [1952]. xviii, 317 p. $4.00.

PHILOSOPHY. THE JOURNAL OF THE ROYAL INSTITUTE OF PHILOSOPHY. Vol. XXVII, No. 101, April 1952. *Sebastian de Grazia:* Authority and Rationality. *Charles F. Sawhill Virtue:* The Axiological Theism of A. E. Taylor. *John J. Fitzgerald:* The Nature of Physical Science and the Objectives of the Scientist. *G. T. Kneebone:* Mathematical Formalisms and Their Realizations. *W. Mays:* Can Machines Think? *Nicola Abbagnano:* Philosophical Survey: Philosophy in Italy. *N. McCracken:* The Nature and Source of Moral Experience.—Vol. XXVII, No. 102, July 1952. *Sir Henry Cohen:* "The Status of Brain in the Concept of Mind." *Patrick Gardiner:* The "Objects" of Historical Knowledge. *E. A. Kedourie:* The Study of Politics. *R. L. Brett:* On Meaning in Literature. *Eric Unger:* Use and Misuse of the Unknown. *Daniel Northman:* A Short Note on Ulam's "Philosophical Foundations of English Socialism."

PHILOSOPHY AND PHENOMENOLOGICAL RESEARCH. Vol. XII, No. 4, June 1952. *A. C. Ewing:* Causality and Induction. *George Boas:* The Perceptual Element in Cognition. *W. H. Werkmeister:* Problems of Value Theory. *Henry David Aiken:* The Authority of Moral Judgments. *William S. Kraemer:* Ethical Subjectivism and the Rational Good. *Ernst Moritz Manasse:* The Philosophical Value of the History of Philosophy. *Daya Krishan:* An Attempted Analysis of the Concept of Freedom. *William M. Walton:* Is Existence a Valid Philosophical Concept? *Robert E. Bass:* Causality, Probability and Organization.

PHILOSOPHY EAST AND WEST. Vol. II, No. 1, April 1952. *Giuseppe Tucci:* On Philosophical Synthesis. *Wilmon H. Sheldon:* What Is Intellect? (Part One). *Walter T. Stace:* Oriental

Conceptions of Detachment and Enlightenment. *Harold E. McCarthy:* T. S. Eliot and Buddhism. *Laurence J. Rosán:* A Key to Comparative Philosophy. *Swami Nikhilananda:* The Three States (Avasthātraya). *Charles A. Moore:* Keys to Comparative Philosophy (Comment and Discussion).

PHILOSOPHY OF SCIENCE. Vol. 19, No. 2, April 1952. *Oliver L. Reiser:* The Evolution of Cosmologies. *Milton K. Munitz:* Scientific Method in Cosmology. *Lester S. King:* Is Medicine an Exact Science? *Adrian C. Moulyn:* The Functions of Point and Line in Time Measuring Operations. *John Somerville:* A Key Problem of Current Political Philosophy: The Issue of Force and Violence. *Horace S. Fries:* Is the Ψ-Function Description "Complete?" A Layman's Question. *William H. Hay:* Professor Carnap and Probability.—Vol. 19, No. 3, July 1952. *D. W. Gotshalk:* Value Science. *Henry Margenau:* Physical Versus Historical Reality. *W. H. Werkmeister:* The Problem of Physical Reality. *Cornelius L. Golightly:* Mind-Body, Causation and Correlation. *Edward H. Madden:* The Philosophy of Science in Gestalt Theory.

THE REVIEW OF METAPHYSICS. Vol. V, No. 4, June 1952. *Paul Weiss:* The Past; Its Nature and Reality. *Laurence J. Lafleur:* Solipsism. *Robert S. Brumbaugh:* Plato's Divided Line. *William P. Alston:* Internal Relatedness and Pluralism in Whitehead. *Leo Strauss:* On Collingwood's Philosophy of History. *Louis O. Mink:* Historical Perspectives on American Philosophy. *Niels C. Nielsen, Jr.:* Przywara's Philosophy of the *Analogia Entis*. *Carl G. Hempel, Roderick Firth, Wilfrid Sellars, Roderick M. Chisholm, Paul Weiss:* Some Theses on Empirical Certainty. *A. C. Das:* Similarities in Eastern and Western Philosophy. *John Myhill:* Two Ways of Ontology in Modern Logic.

THE THOMIST. Vol. XV, No. 1, Jan. 1952. *Santiago Ramírez:* The Authority of St. Thomas Aquinas. *G. Geenan:* The Place of Tradition in the Theology of St. Thomas. *James F. Anderson:* Time and the Possibility of an Eternal World.—Vol. XV, No. 2, April 1952. *Robert Edward Brennan:* Walter Farrell, O. P.; *Apud Posteros Sacer*. *David A. O'Connell:* Christian Liberty. *Dominic Hughes:* The Dynamics of Christian Perfection. *William J. Grace:* The Historical Opportunity of Orthodoxy.—Vol. XV, No. 3, July 1952. *Raymond C. Jancauskas:* The Morality of Basing-Point Pricing. *Thomas Greenwood:* Euclid and Aristotle. *David A. O'Connell:* Christian Liberty (Conclusion).

THOUGHT; FORDHAM UNIVERSITY QUARTERLY. Vol. XXVI, No. 103, Winter 1951–1952. Especially: *Franz H. Mueller:* Rejecting Right and Left: Heinrich Pesch and Solidarism. *Charles Donahue:* Criticism and Philosophy. *William F. Lynch, Joseph W. Evans, J. M. O'Neill:* Church and State.—Vol. XXVII, No. 104, Spring 1952. Especially: *John Courtney Murray:* A Church-State Anthology; the Work of Father Murray, ed. by Victor R. Yanitelli. *W. H. Auden:* Notes on the Comic.

NOTES AND NEWS

Professor Richard P. McKeon of the University of Chicago has been appointed Visiting Professor of Moral Philosophy at the University of Arkansas for the fall term, 1952. The professorship has been provided by the General Education Board.

Dr. Marie Christodoulou of Smith College has been appointed Assistant Professor of Philosophy at the University of Arkansas.

Because of the increasing importance of the problem of interpreting American civilization abroad, the American Studies Association is planning a two-day conference on aspects of this subject to be held at the Library of Congress on Friday and Saturday, November 28 and 29, 1952. One session each will be devoted to discussions of (1) American studies programs in Europe, (2) experiences of American scholars in Europe, and (3) experiences of European scholars in America. A fourth session will consider the implications which the findings of the preceding sessions have for American civilization studies programs in the United States.

The chairman of the conference will be Dean Charles Manning of the University of Maryland, to whom those interested in details of the conference are invited to address their inquiries.

An award of five hundred dollars will be given for the best article in aesthetics or the philosophy of art by an American author during the academic year 1952–53. This award is offered by the Franklin J. Matchette Foundation of 20 East 66th Street, New York City, through its Director, Mr. William H. Matchette, and its Board of Trustees. Articles are to be sent to Dr. Thomas Munro, Editor of *The Journal of Aesthetics and Art Criticism,* at the Cleveland Museum of Art, Cleveland 6, Ohio. They must arrive by May 1, 1953. Each article should be accompanied by a large, self-addressed envelope with sufficient postage for return.

For further details, consult Dr. Munro.

THE JOURNAL OF PHILOSOPHY

There is no similar journal in the field of scientific philosophy. It is issued fortnightly and permits the quick publication of short contributions, prompt reviews, timely discussions, notes on new books and other journals, and news of philosophic interest. The last five issues contain:

VOLUME XLIX

No. 12. June 5, 1952.

The Alleged Privacy of Experience. JUSTUS HARTNACK.

The Logic of Experience. RICHARD D. MOSIER.

Heidegger's "Being." J. GLENN GRAY.

No. 13. June 19, 1952.

Negative Things. RICHARD TAYLOR.

Towards a Natural Teleology. D. MAURICE ALLAN.

No. 14. July 3, 1952.

Tendency: The Ontological Ground of Ethics. JOHN WILD.

Comments and Criticism: More on Professor Pepper's Theory of the Aesthetic Object. JAMES L. JARRETT.

No. 15. July 17, 1952.

Philosophy and *Argumentum ad Hominem*. HENRY W. JOHNSTONE, JR.

Ethics and Explanation. JOHN LADD.

A Personal Tribute to Ernst Hoffmann (1880–1952). ANNA FORBES LIDDELL.

No. 16. July 31, 1952.

On the Definition of the Causal Relation. HERBERT A. SIMON.

Review of Max Hamburger's *Morals and Law; the Growth of Aristotle's Legal Theory*. EDWIN N. GARLAN.

THE JOURNAL OF PHILOSOPHY

515 W. 116th St., New York 27, N. Y.

$5.25 per annum (26 numbers) single numbers, 35 cents; double numbers, 60 cents

A New French Edition with Notes of the

Complete Philosophical Works of

CONDILLAC

Edited by G. LE ROY

3 *quarto* volumes—2000 pages

Paper bound $15.00 — Cloth bound $20.00

(Postage Additional)

Order from American Bookstores or directly from the publishers

PRESSES UNIVERSITAIRES de FRANCE

180, Boulevard Saint-Germain, Paris VIe

These are the first volumes to appear in a monumental

CORPUS GENERAL
DES PHILOSOPHES FRANÇAIS

under the general editorship of Raymond Bayer, Director of the International Institute of Philosophy of the Sorbonne, Paris, and sponsored by UNESCO. Prospectus of the 33 volumes available on application.

The Works of BUFFON in Press

An Exceptional Opportunity for Libraries to Purchase Classics at Bargain Prices. Continuation Orders Welcome.